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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/594,408

12/12/2006

Otto Weichselbaum

WBW-13903

1937

24131 7590 04/30/2010
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EXAMINER

PERKEY, WILLIAM B

ART UNIT

PAPER NUMBER

2862

MAIL DATE

DELIVERY MODE

04/30/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/594,408 | Applicant(s) WEICHSELBAUM ET AL. | |
| | Examiner W.B. Perkey | Art Unit 2862 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-60 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 19-33, 35, 42-50 and 57-60 is/are rejected.
- 7) ☒ Claim(s) 34, 36-41 and 51-56 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>10/18/06, 11/13/06</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 19-25, 29, 30, 35, 46, 57, 59 are rejected under 35 U.S.C. 102(a) as being anticipated by Friedman (US2004/0053189 A1).

Friedman shows an optical attachment in Figs. 1(a) – 1(d). A solid, colorless, and transparent conductor is shown as element 12 and a transparent, colorless cushion pad is shown as element 11. Elements 11 and 12 are in a form-locking relationship. Thus, claim 19 is fully met by Friedman. Concerning claim 20, element 12 is homogenous and the light admission surface is seen as substantially flat. Concerning claim 21, element 21 is homogenous. Concerning claim 22, cushion pad 11 is connected at the light exit surface of conductor 12 in a material-locking manner, since they are integrally formed from a single mold. Concerning claim 23, conductor 12 is configured for attachment to an illuminating device as shown in Fig. 2(b) for curing. Concerning claim 24, the attachment 10 is configured for illuminating tooth surfaces and the cushion pad 11 is formed for placement on the tooth surfaces. Concerning claim 25, Friedman

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shows the alternative of configured to an illuminating device. Friedman does not have to show the other alternative configuration to meet the claim. Concerning claim 29, cushion pad 11 is a solid body and is elastic. Concerning claim 30, the second material of the cushion pad 11 is a silicone or polyurethane derivative (paragraph 0014) with a shore hardness of < 40 as paragraph 0014 of Friedman discloses a range of 20-60. Concerning claim 35, Fig. 3(a) shows an alternative embodiment wherein the “conductor” comprises 1’ and 12” connected to one another in a material-locking manner. Concerning claim 46, the curing light source is fastened in front of the light-admission surface of the conductor 12. Concerning claim 57, Freedman discloses or suggests a light source for curing. Concerning claim 59, the “for detecting features selected from the group consisting of colors and structures” is given no patentable weight as this language imparts no particular structure to the illuminating device.

3. Claims 19, 26 are rejected under 35 U.S.C. 102(b) as being anticipated by O’Rourke (US 5,402,508).

O’Rourke shows an optical attachment 20. A solid clear conductor is shown as element 32 or 34. A transparent cushion pad is shown as window 28. The conductor (32 or 34) and the cushion pad (28) are in a form-locking relationship established by elements 22, 48, and 42. Concerning claim 26, the conductor, 32 or 34, is a rigid and hard first material.

4. Claims 19-24, 26, 27, 29, 42-47, 50 are rejected under 35 U.S.C. 102(a) as being anticipated by Fischer et al. (US 2004/0214130 A1).

Fischer shows an optical attachment in Fig. 3 comprising a solid transparent colorless conductor 302 and a transparent colorless cushion pad 300. Concerning claims 42-45, the conductor part 302 has a carrier part having a notch or groove for attachment of the intermediate focusing lens

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306. Concerning claims 46 and 47, Fig. 3 suggests a plurality of light emitters behind the intermediate focusing lens 306. Concerning claim 50, Fig. 1 shows a handle portion for the curing illumination device.

5. Claims 19, 22, 23, 26, 27, 29, 32, 33, 48, 49, 58, and 60 are rejected under 35 U.S.C. 102(b) as being anticipated by Kaneko et al. (US 6,344,930 B1).

Kaneko et al. shows an optical attachment as the lens 1 in Fig. 1. A solid, colorless, and/or optically clear conductor is shown as lens element 13. A transparent, colorless, and/or optically clear cushion pad is shown as the liquid lens 11 having flexible transparent films and a liquid in-between the films. Conductor 13 and cushion pad 11 are held in form-locking relationship by portions of the optical attachment device 1. Concerning claim 23, element 61 is a light source and element is a CCD array camera or detection unit. Concerning claims 32 and 33, the pad 11 is a hollow body formed by the thin films 11 and is filled with a transparent clear liquid. Concerning claims 48, 49, and 58, elements 3 and 4 comprise an image-recording device. Concerning claim 60, the adjective “intraoral” in the claim phrase “intraoral camera” is given no patentable weight since it imparts no particular physical characteristic of the camera that is peculiar to intraoral photography.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Rourke (US 5,402,508).

To make the first material of the conductor 32 or 34 from conventional optics material such as glass or plastic material is not a patentably distinguishing feature. Concerning claim 28, the hardness as specified in this claim appears to be within the purview of the ordinary workman in the art, as it is a typical hardness range for rigid glass and plastic members.

8. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer et al. (US 2004/0214130 A1).

It is within the purview of the ordinary workman in the art to have made the conductor 302 of higher refractive index than the cushion pad 300, since its disclosed purpose is for cushioning rather than for refraction. Whereas the purpose of the lens 302 is for refraction in order to focus the curing illumination to a spot.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 31, 32, and 44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There is no clear and proper antecedent basis in the claims for "said second material" found in claim 30 and "said first material" found in claim 31; nor for "said carrier part of claim 44. It appears that claim 44 should depend from claim 42, not claim 19.

Allowable Subject Matter

11. Claims 34, 36-41, and 51-56 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William B. Perkey whose telephone number is (571) 272-2126. The examiner can normally be reached on Monday-Thursday 7:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Clayton E. LaBalle can be reached at 571-272-1594. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any response to this office action should be faxed to (571) 273-8300 or mailed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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Hand - delivered responses should be brought to:

Customer Service Window
Randolph Building
401 Dulany Street

/William B. Perkey/
Primary Examiner
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